2004 Virginia Transportation Conference

53rd Virginia Transportation Conference

US Chamber of Commerce
National Chamber Foundation
Trade & Transportation: A Study of North American Port and Intermodal Systems:
Freight Movement from Virginia Ports

John Vickerman
Principal
TranSystems Corporation
Norfolk, Virginia

TranSystems Corporation

US Chamber of Commerce
National Chamber Foundation
Trade & Transportation: A Study of
North American Port and Intermodal Systems

NCF
NATIONAL CHAMBER FOUNDATION

The State of The North American Port and Intermodal Systems

U.S. Intermodal Freight Transportation System is an essential component of our national commercial economy…

this system is at risk.

TRANSYSTEMS CORPORATION

We do not have an "intermodal system" as such. Rather we have an aggregation of multiple, private and public modes, each of which are "stove-piped" within their own individual areas of interest with little or no true cross communication and collaboration.



The North American Intermodal Paradox:

The nation's ports and their inland intermodal linkages are experiencing the "best of times and the worst of times" in terms of growth and demands on capacity

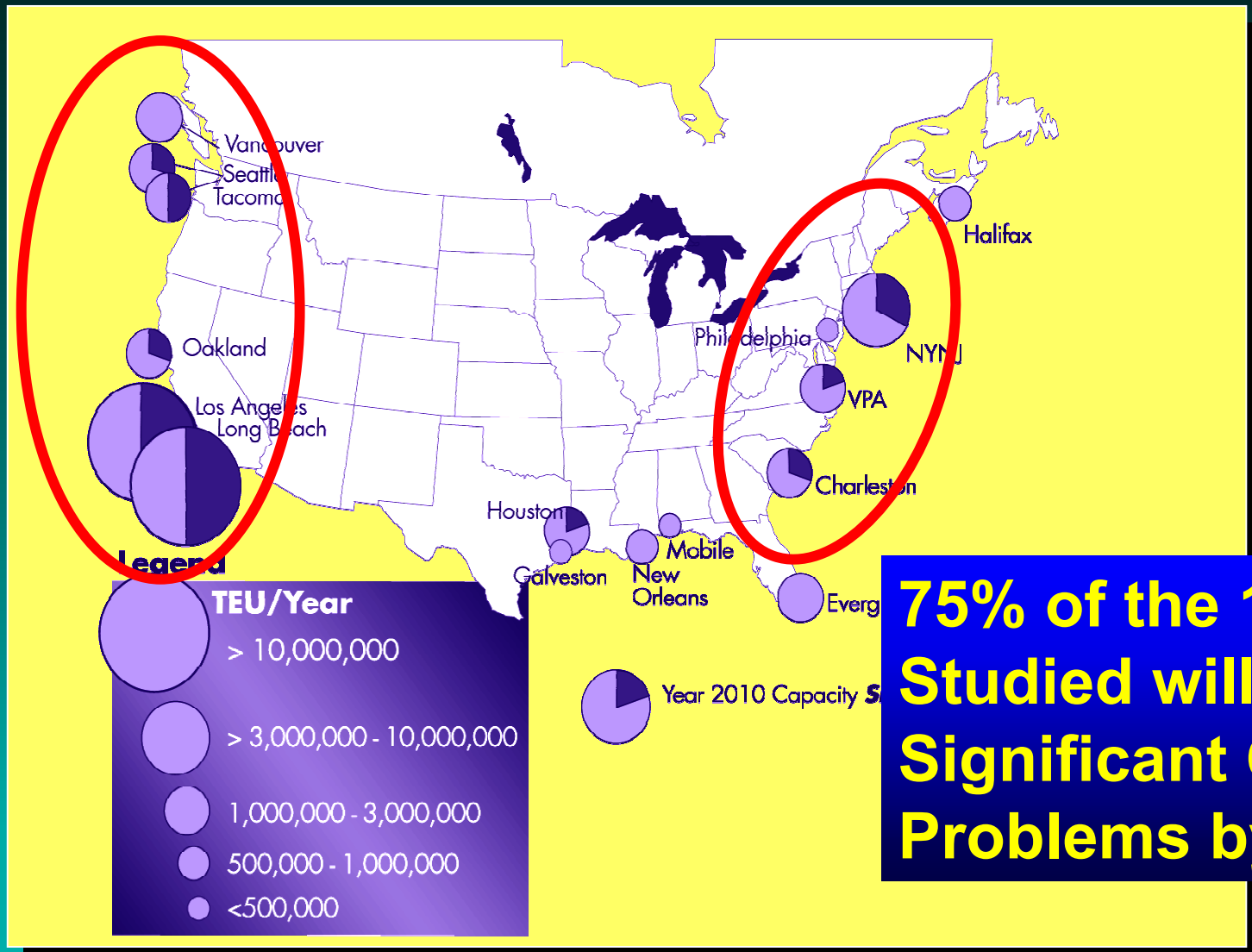



TRANSYSTEMS CORPORATION

The State of The North American Port and Intermodal Systems

	USCOC Target Ports	Canadian Ports	West Coast Ports	Gulf Coast Ports	East Coast Ports
1.	Vancouver, Canada	●			
2.	Tacoma, Washington		●		
3.	Seattle, Washington		●		
4.	Oakland, California		●		
5.	Los Angeles, California		●		
6.	Long Beach, California		●		
7.	Houston, Texas			●	
8.	Mobile, Alabama			●	
9	Galveston, Texas			●	
10.	New Orleans, Louisiana			●	
11.	Halifax, Canada	●			
12.	New York/New Jersey				●
13.	Norfolk, Virginia				●
14.	Philadelphia, Pennsylvania				●
15.	Port Everglades, Florida				●
16.	Charleston, South Carolina				●

2010 Projected Public Port Capacity Shortfall

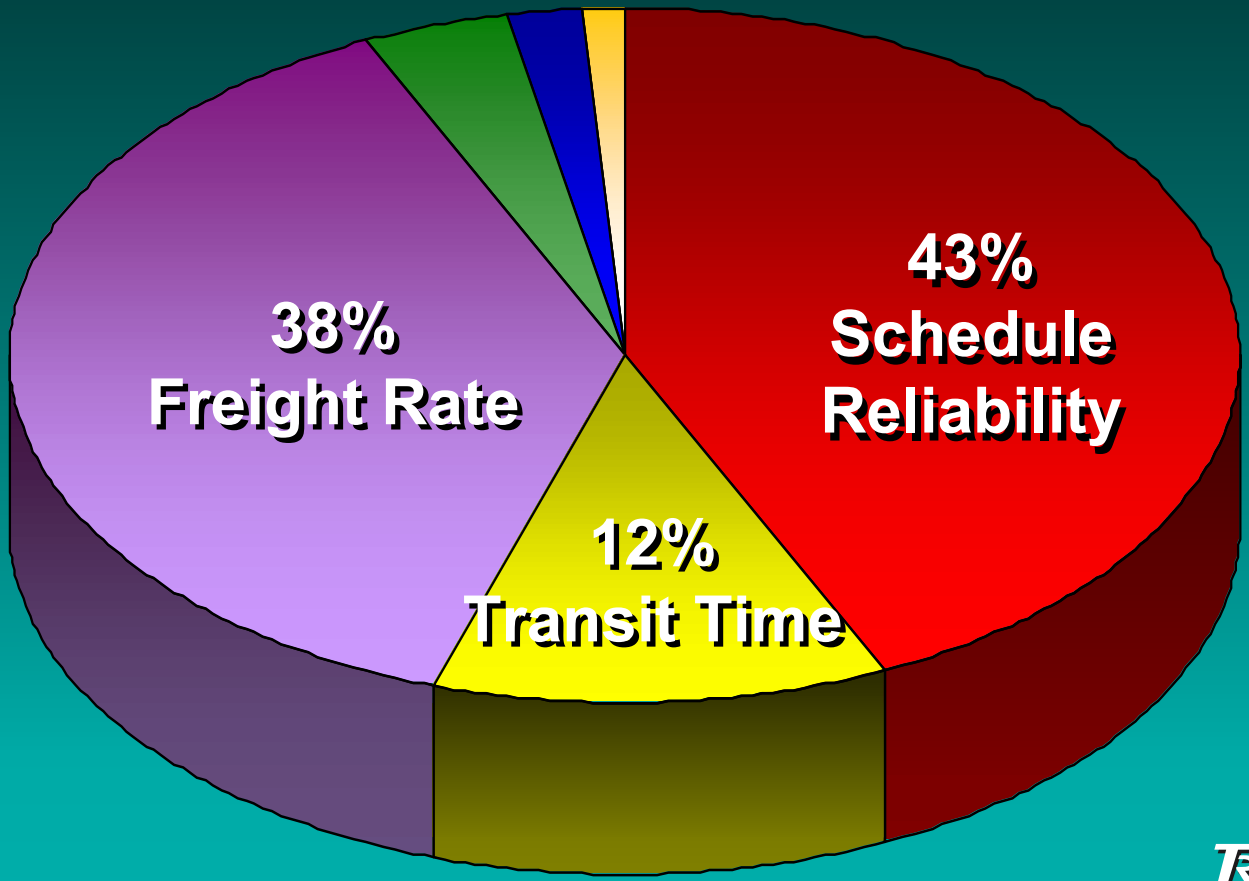


75% of the 16 Ports Studied will have Significant Capacity Problems by 2010

Port and Intermodal Evolving Industry Economic Pressures

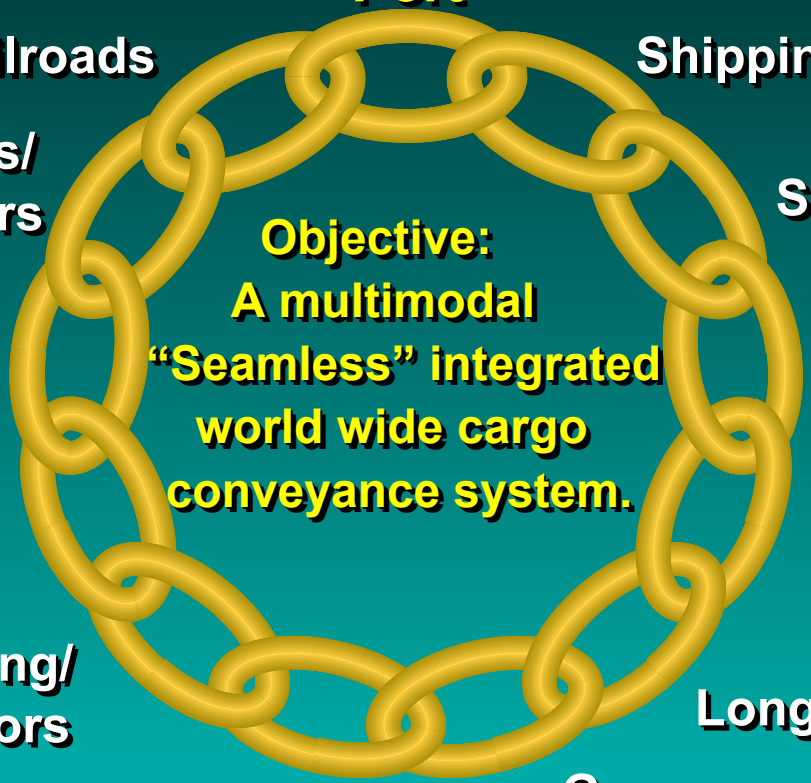
TRANSYSTEMS CORPORATION

Poll of the Top 1000 "Blue Chip" Multinational Shipper Priorities



The "Port"

One of the Many Diverse Constituencies in the Cargo Transportation Logistics Chain



At Current Productivity and Growth Levels by 2020 North American Ports & Their Associated Intermodal Systems Will Be Severely Congested


Where's my cargo?

Americas Systems Inc. develops a port system that allows companies to obtain information on shipments

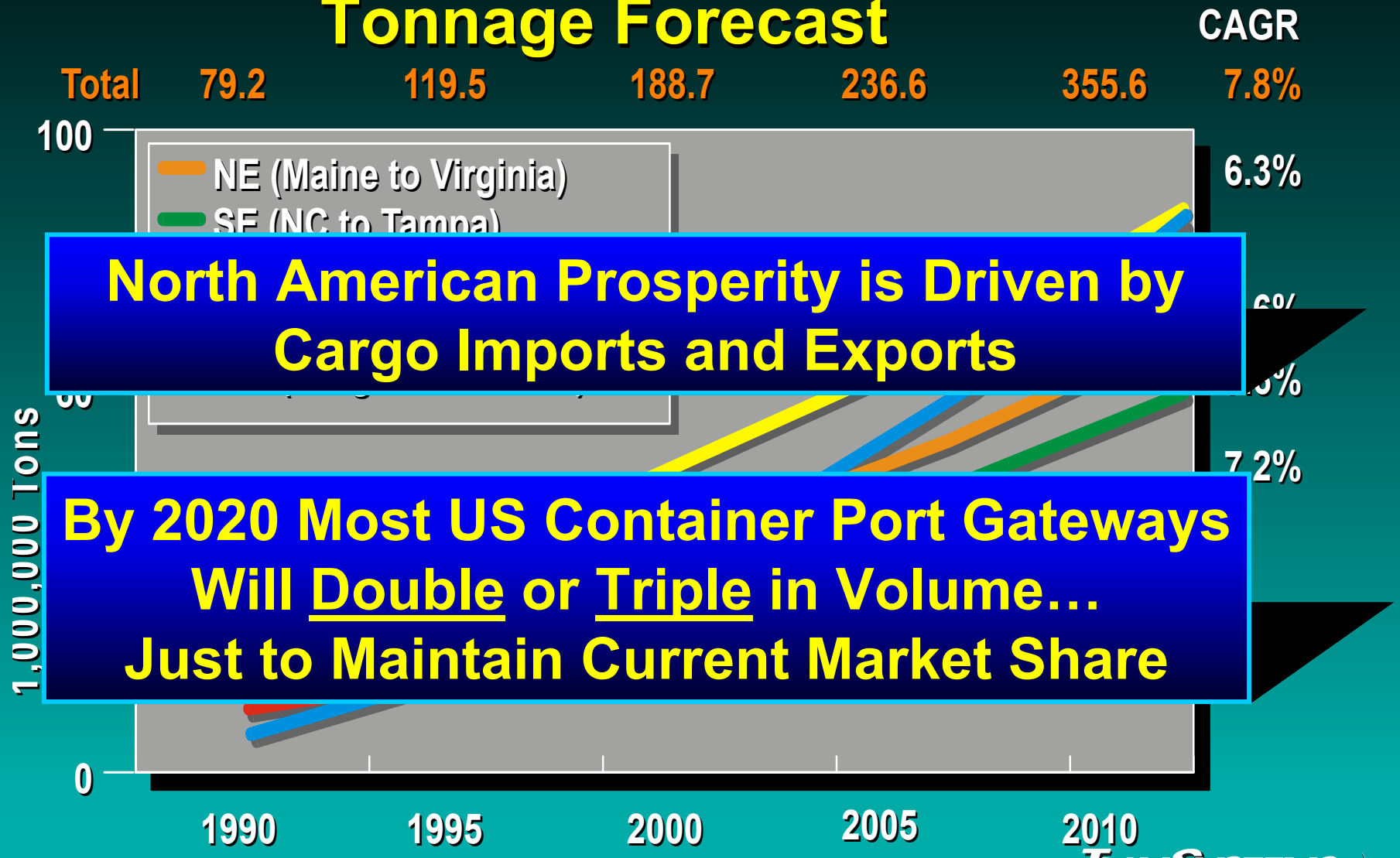
BY CHRIS DUPIN

TRANSYSTEMS CORPORATION

Today's Logistics Truths:

"The customer wants more and is willing to pay less for it."

U.S. Containerized Tonnage Forecast

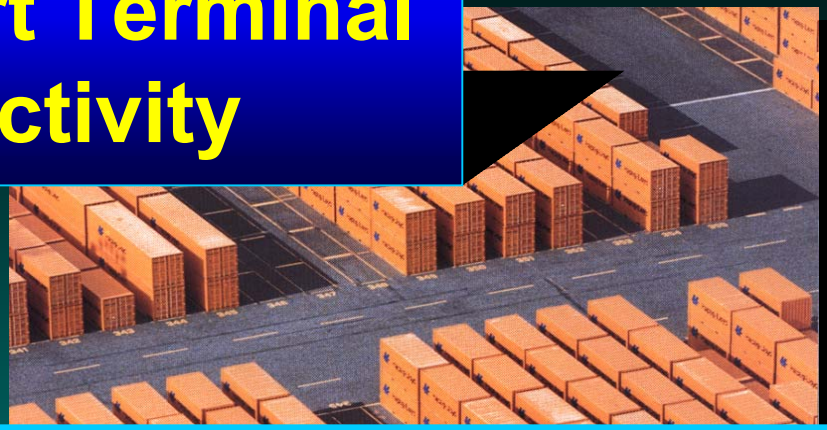


North American Prosperity is Driven by Cargo Imports and Exports

By 2020 Most US Container Port Gateways Will Double or Triple in Volume… Just to Maintain Current Market Share

Source: DRI/McGraw Hill

Global Port Terminal Productivity

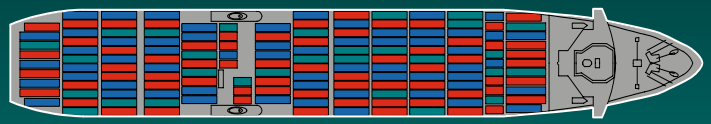


North American Ports Are Not As Productive As The Most Productive International Ports By a Factor Of More Than 4 To 1

TRANSYSTEMS CORPORATION

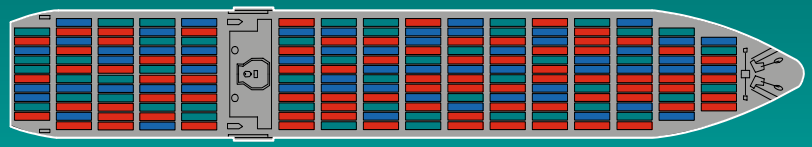
Container Ship Evolution

1st Generation (Pre-1960 - 1970)

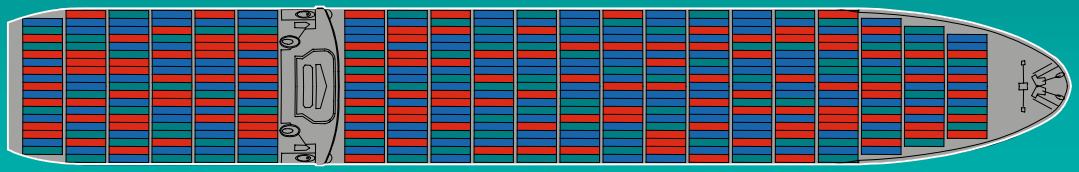


2nd Generation (1970 - 1980)

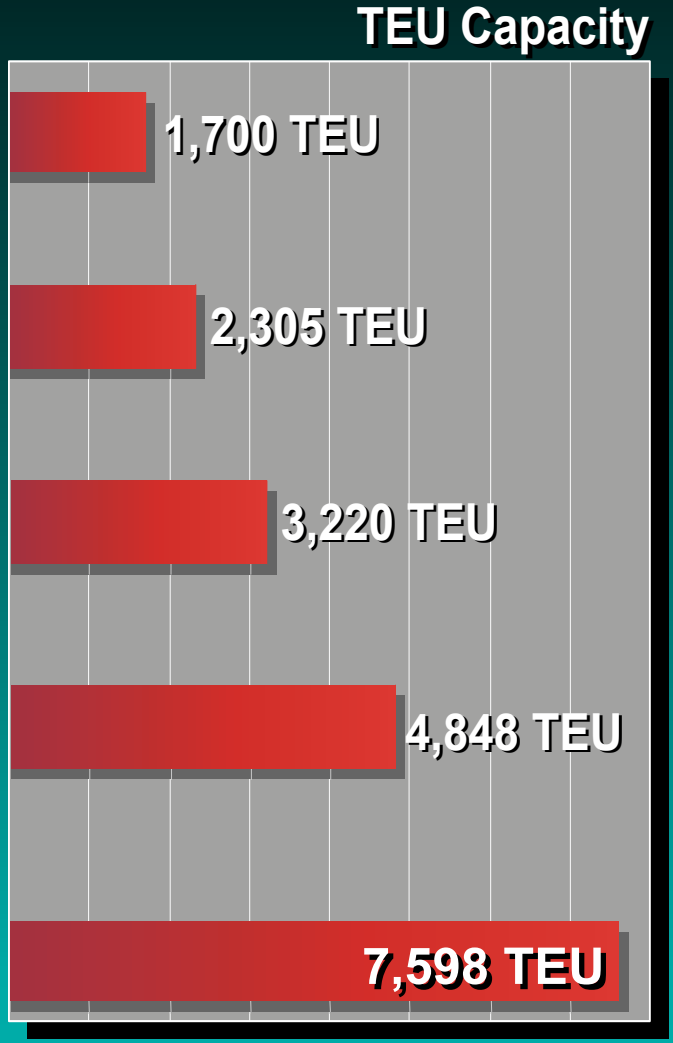
3rd Generation (1985)



4th Generation (1986 - 2000)



5th Generation (2000 - 2005)



Mega Container Vessel Trends

1970 Industry Prediction: "3,250 TEU"

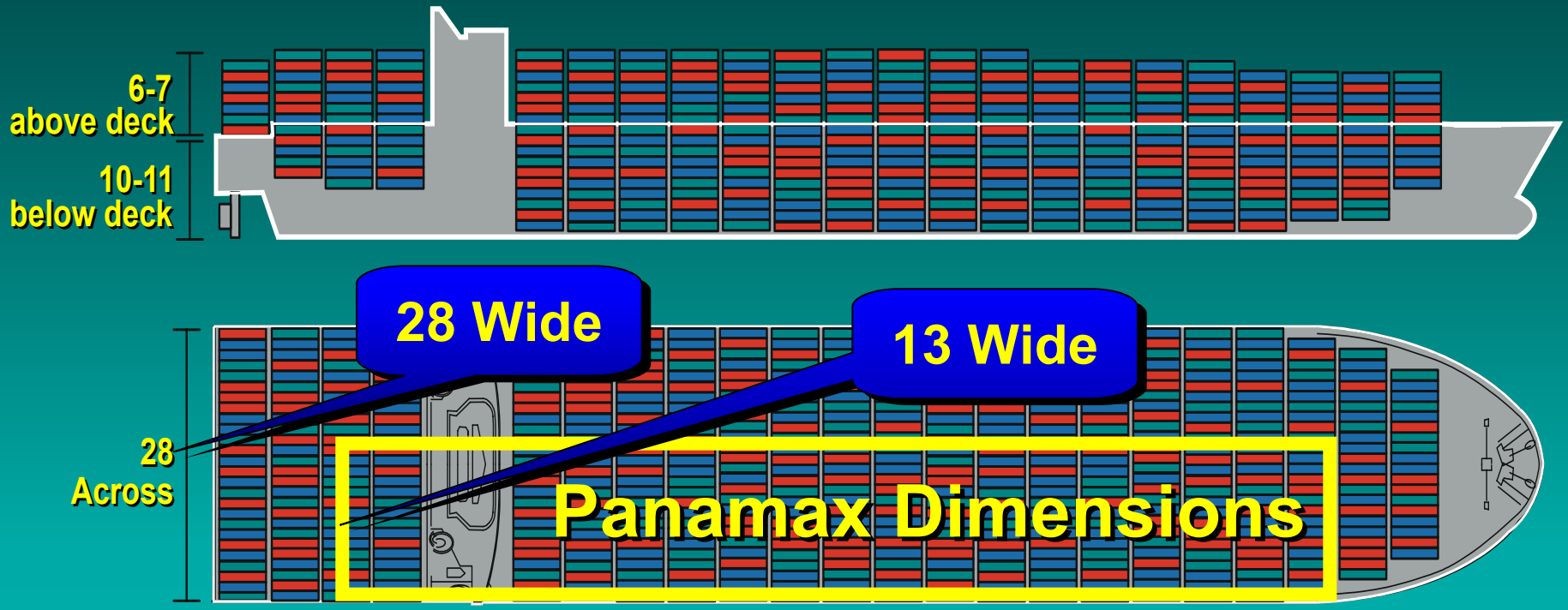
The Reality:

Regina Maersk	6,000 TEU
Sovereign Maersk	6,600 TEU
20-Wide Planned	8,000 TEU

Near Term Possible: 10,000 – 15,000 TEU (Suez-Class)

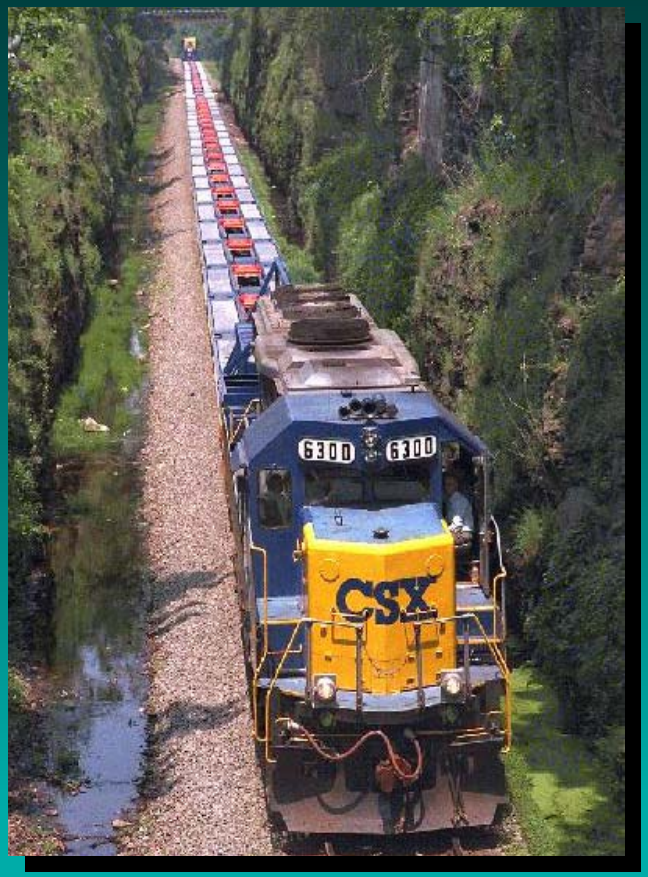
The 15,000 TEU Containership

LOA. = 400 m (1,312 ft.)
Draft = 14 m (46 ft.)
BEAM = 69 m (226 ft.)

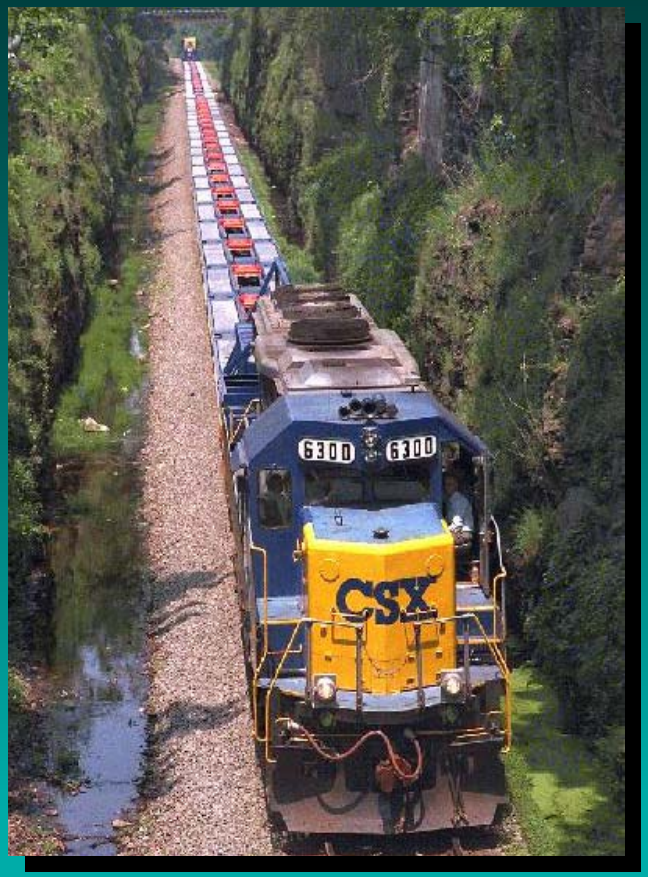


TRANSYSTEMS CORPORATION

North American Intermodal Rail Freight Movement Trends



North American Intermodal Rail Freight Movement Trends



The Railroad Industry… Since the Staggers Act:

35% less track

32% fewer locomotives

27% fewer railcars

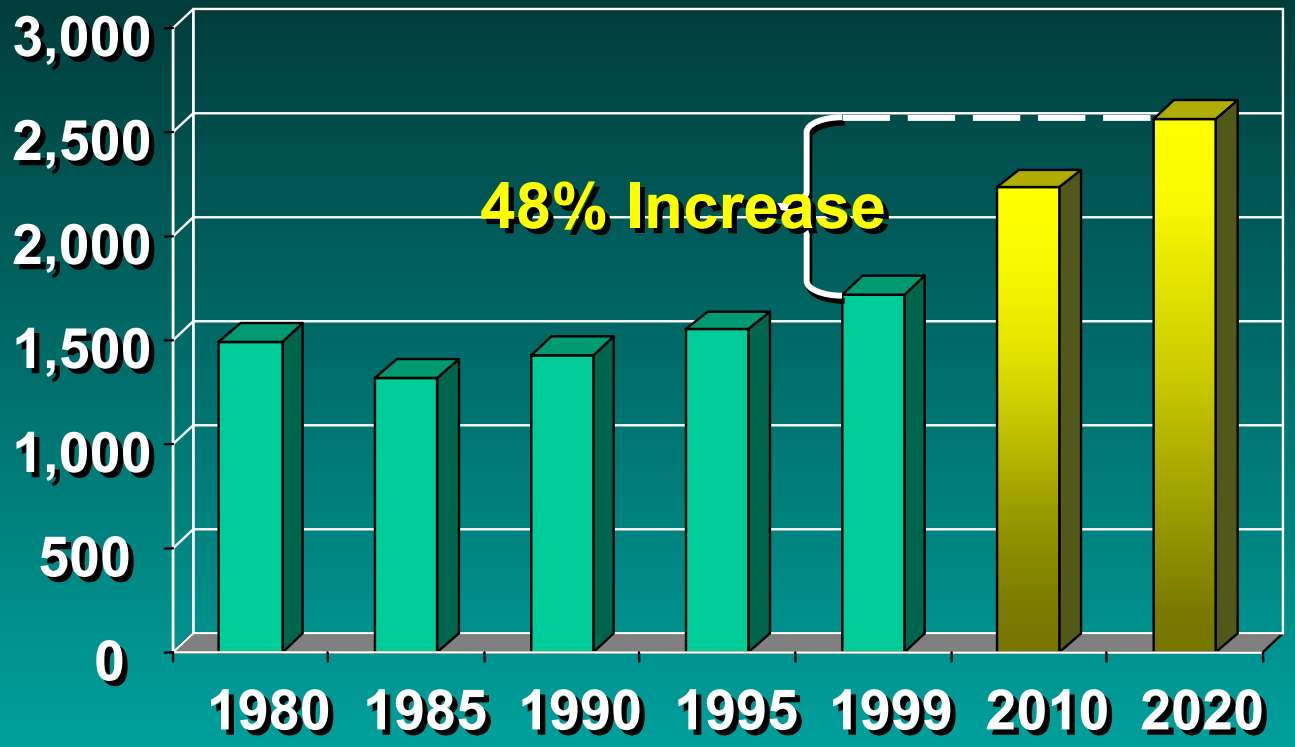
60% fewer employees

But:

well over 50% more freight!

2020 Forecast of US Rail Traffic

(By Origins in Millions of Tons)

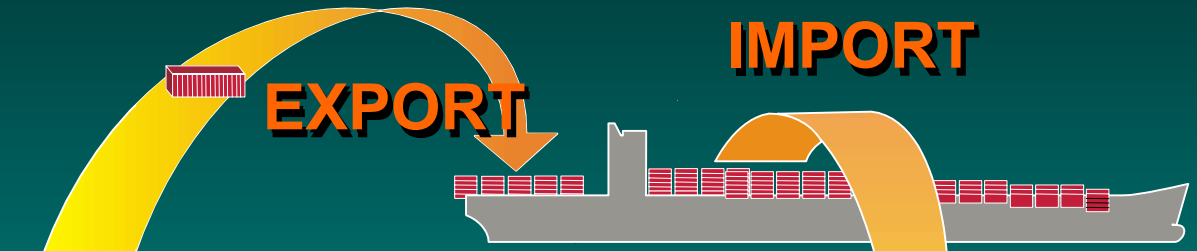


Source: FHWA Multi-Modal Freight Analysis,
Framework Project using Reebie Associates 1998 data

A 10,000 TEU Mega-Container Vessel Can Produce High Intermodal Rail Volumes (One Weekly Vessel Call)

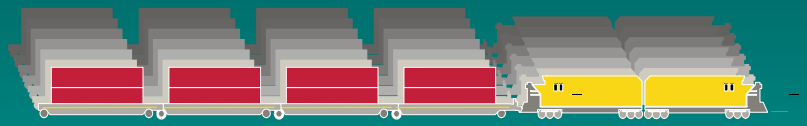
EXPORT

IMPORT



Vessel Capacity
10,000 TEU

(5,892 Units)



13.4 Double Stacked Trains

13.4 Double Stacked Trains

75% Intermodal Split

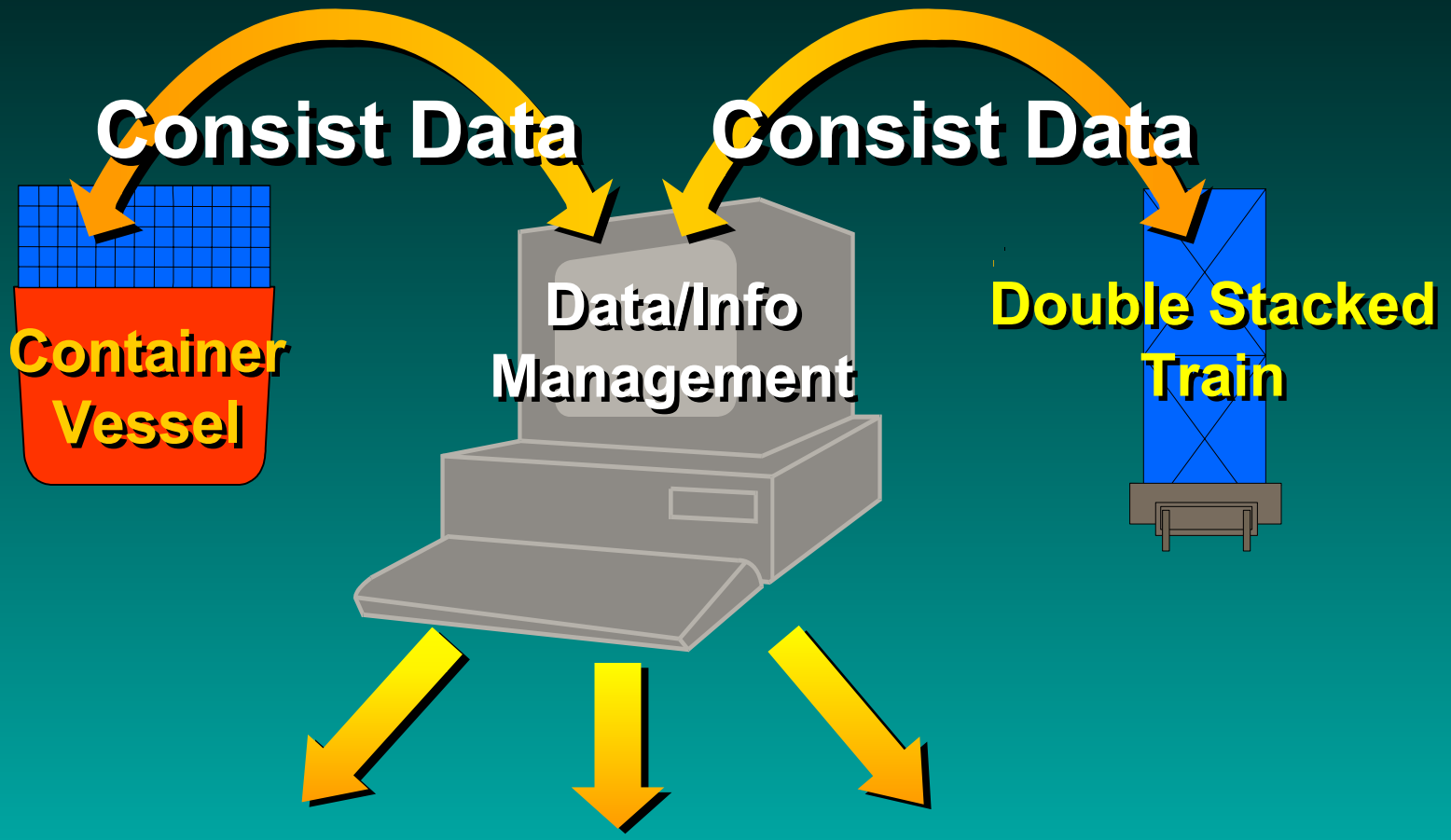
TRANSYSTEMS CORPORATION


UNITED STATES TRANSPORTATION COMMAND
CCDoTT
Center for the Commercial Deployment of Transportation Technologies
DEPARTMENT OF TRANSPORTATION
UNITED STATES OF AMERICA
Maritime Administration
USDOD Agile Port Information Technology (IT) Developments
SEALAND
TRANSYSTEMS CORPORATION

The Agile Port Concept is not a new technology…

…It is a way of managing and organizing information to reduce container port terminal dwell time & increase terminal capacity.

IT Freight Data/Information Integration



Major Terminal & Systems Benefits

USDOD Agile Port Technology Full Scale IT Demonstration Project

Hyundai Terminal
Washington United Terminals
Port of Tacoma
22-29 June 2003

Potential: Doubling the Terminal Capacity without Building Anything

TRANSYSTEMS CORPORATION

2004 Virginia Transportation Conference

53rd Virginia Transportation Conference

Future Freight Movements from Virginia Ports

TranSystems Corporation

Distribution of Ship Calls The Port of Virginia

More Than 75 Steamship Lines Serve the Port
Sailings to Over 250 Ports in 100 Overseas Locations

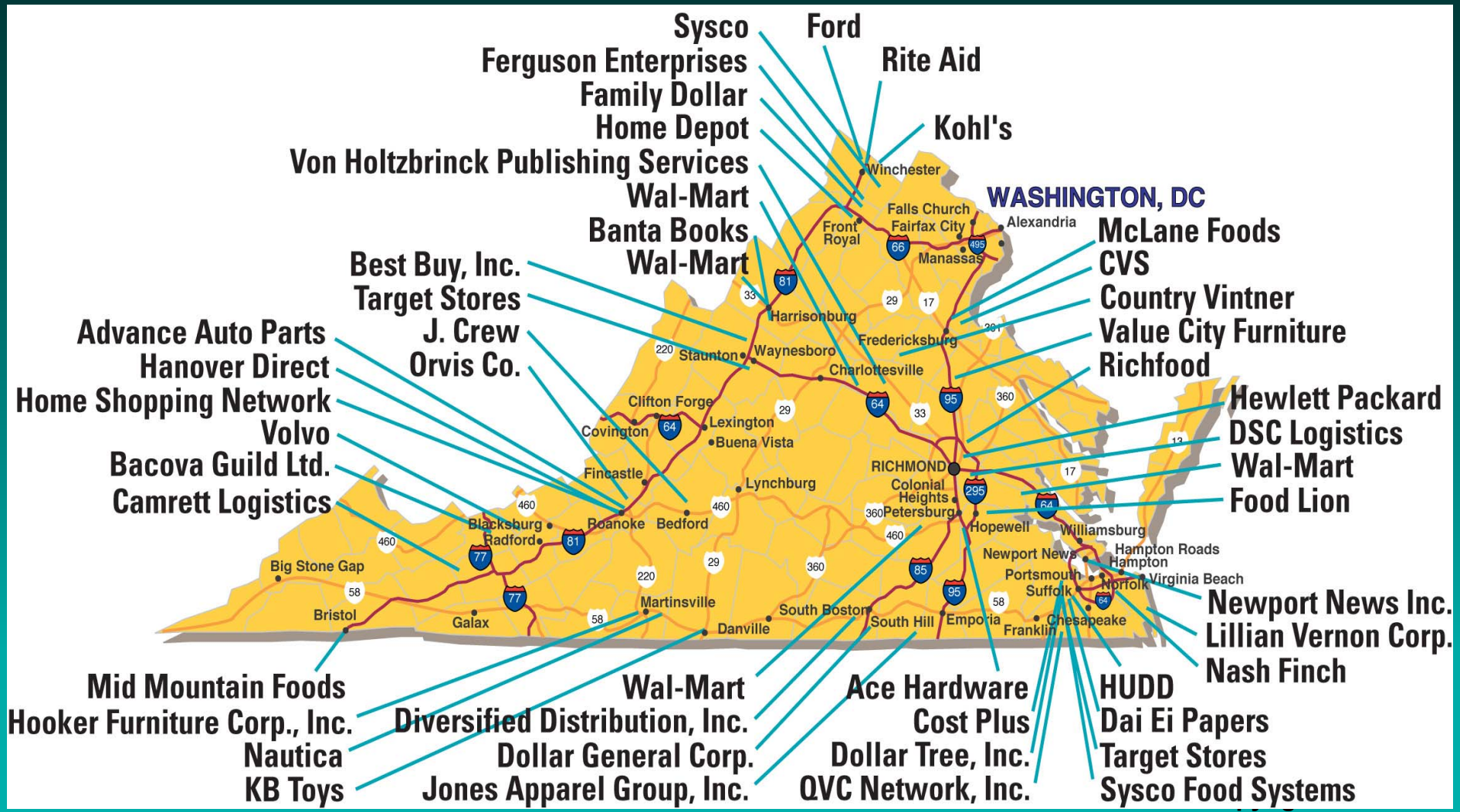
*Many services call more than one tradelane.

VPA's Mid-Atlantic Location Advantage

The Port of Virginia is within a days drive of 75% of the nation's population and 301,000 of the nation's manufacturing firms

Virginia Distribution Centers

Over 80 Distribution Centers Located in Virginia



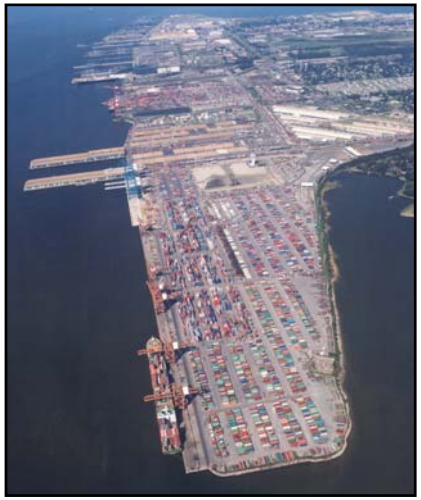
Location of VPA Terminals

Virginia Inland Port (VIP)
Front Royal, VA

Newport News
Marine Terminal (NNMT)
Newport News, VA

Future Craney Island Terminal
Portsmouth, VA

Portsmouth Marine Terminal (PMT)
Portsmouth, VA

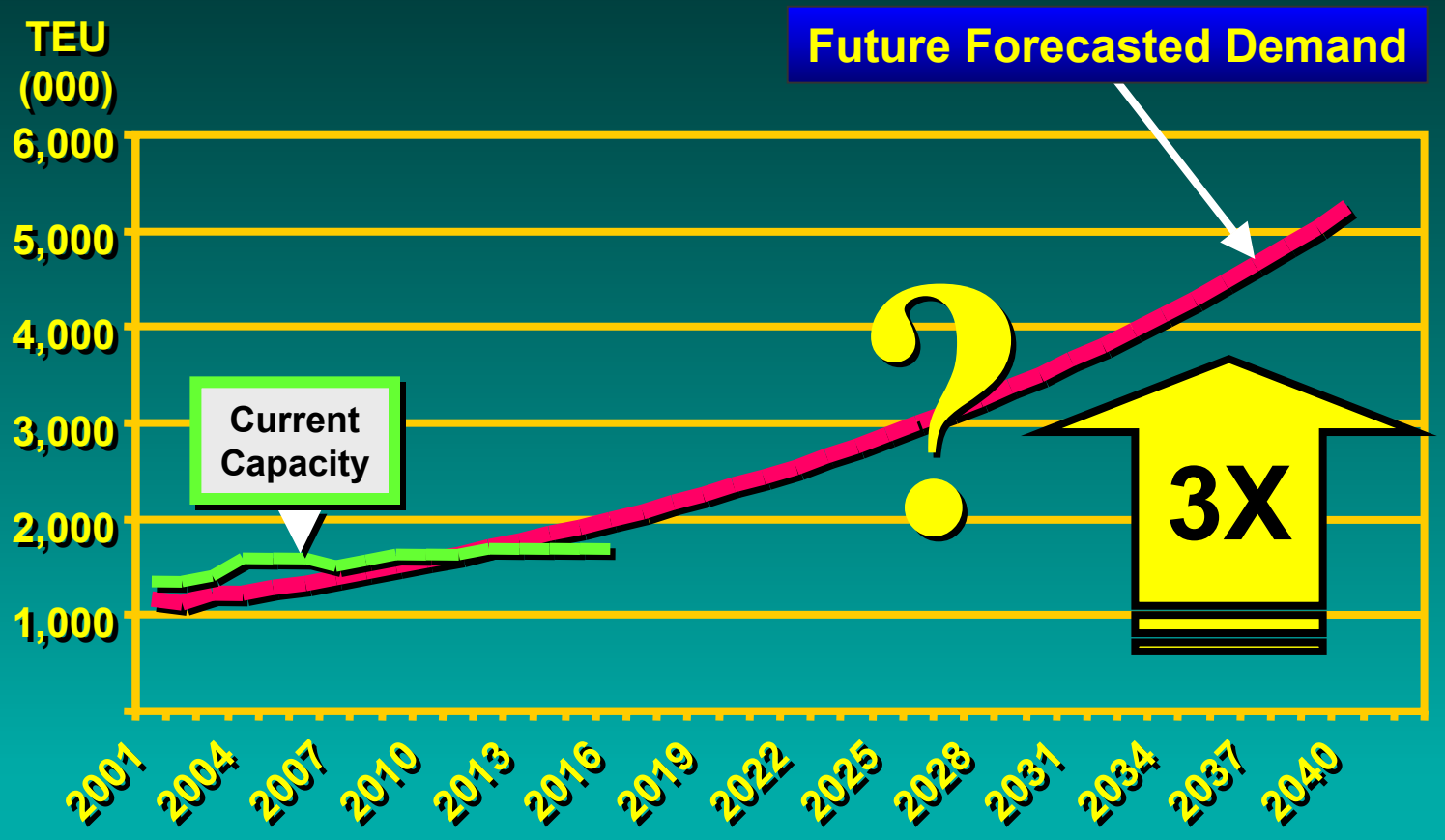


Norfolk International Terminals (NIT)
Norfolk, VA

TRANSYSTEMS CORPORATION

Ports of Virginia Growth

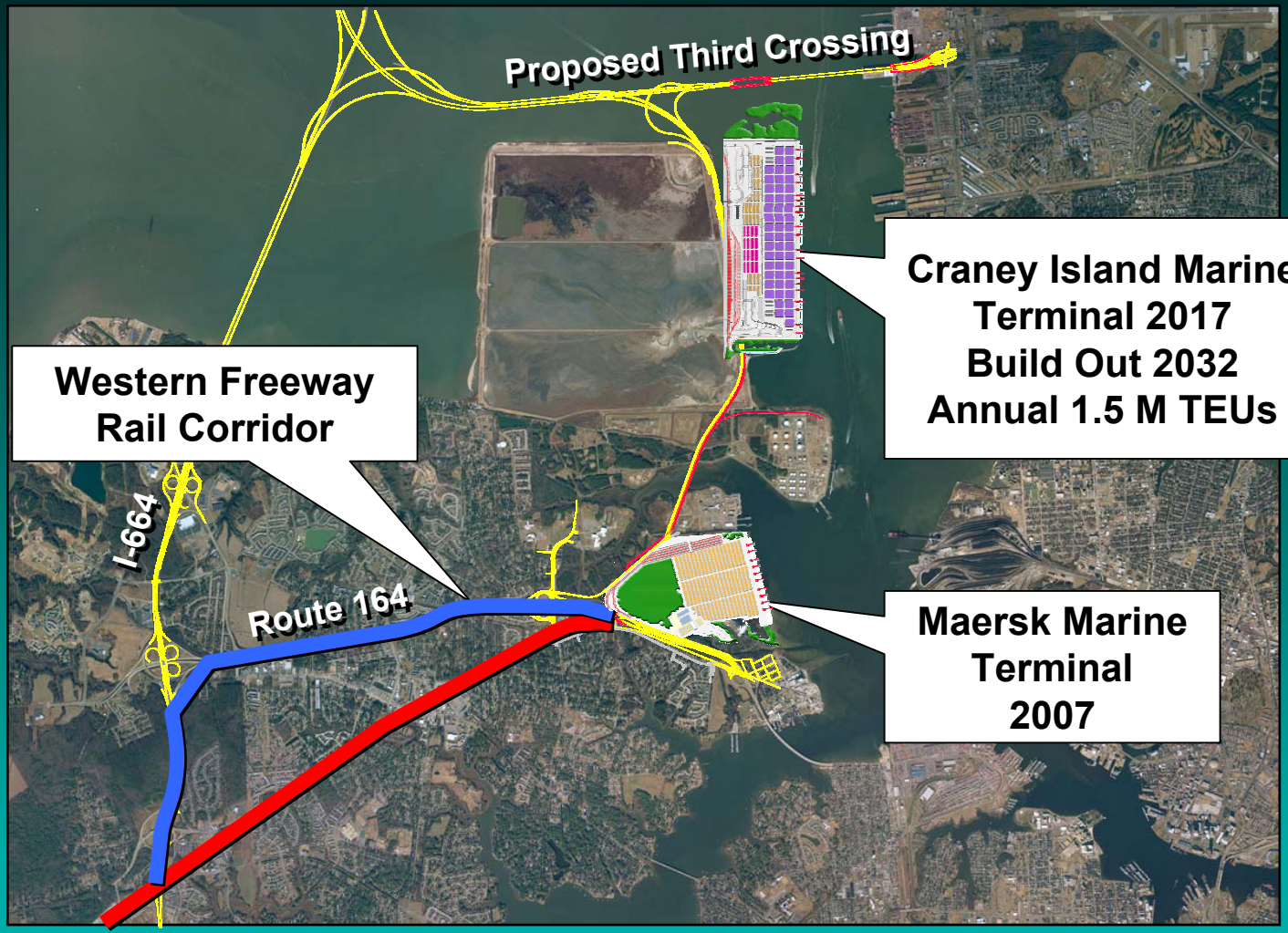
Cargo is Projected to Grow at 4.1% for the Next 20 to 40 Years



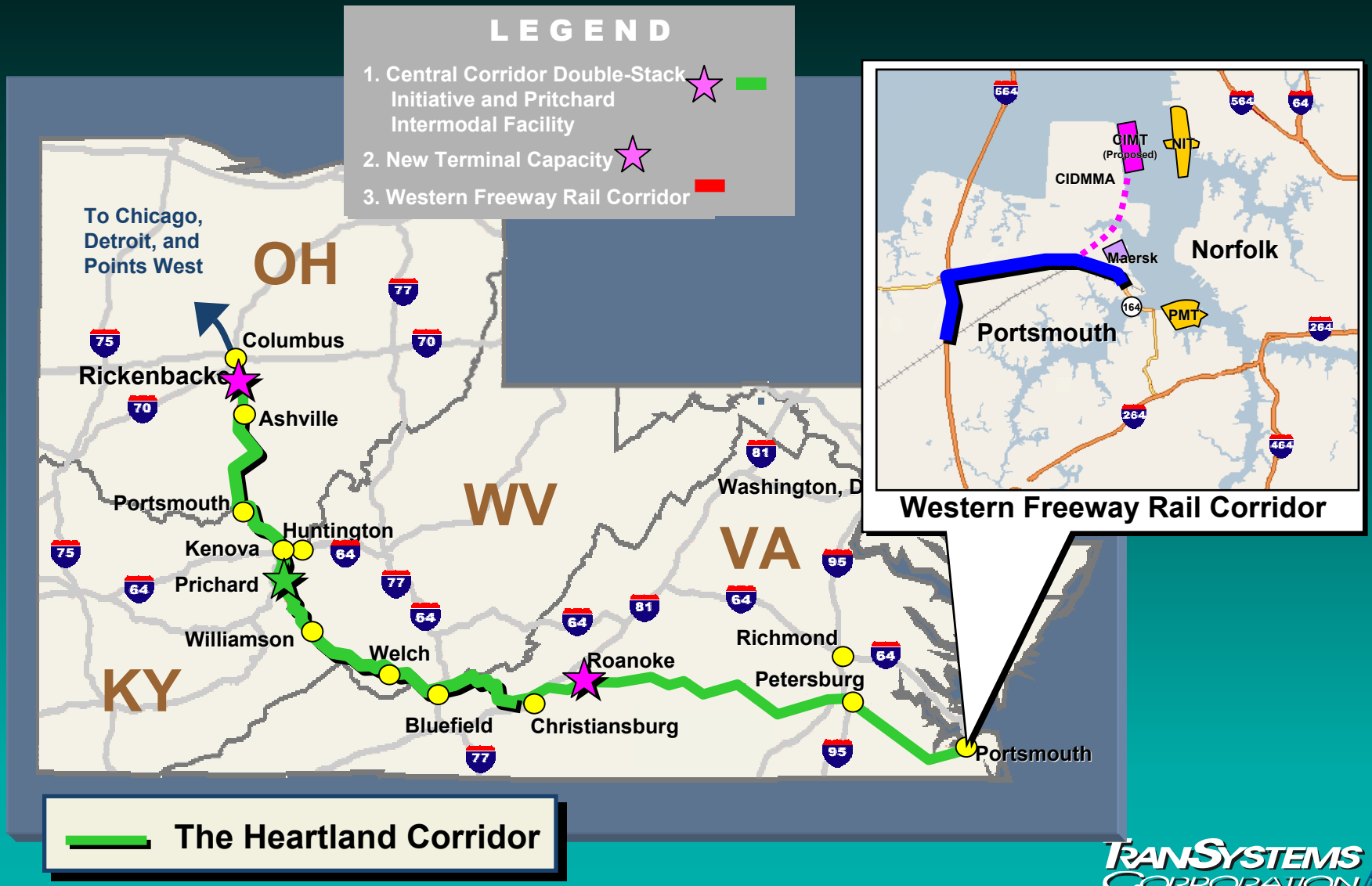
Norfolk International Terminal Full Build Out

Proposed Fourth Marine Terminal

Western Freeway/Rail Freight Corridor



Heartland Rail Freight Corridor



Heartland Corridor Double Stacked Initiative

28 Tunnels Require Modification: 4 in Virginia, 1 in Kentucky, 23 in West Virginia

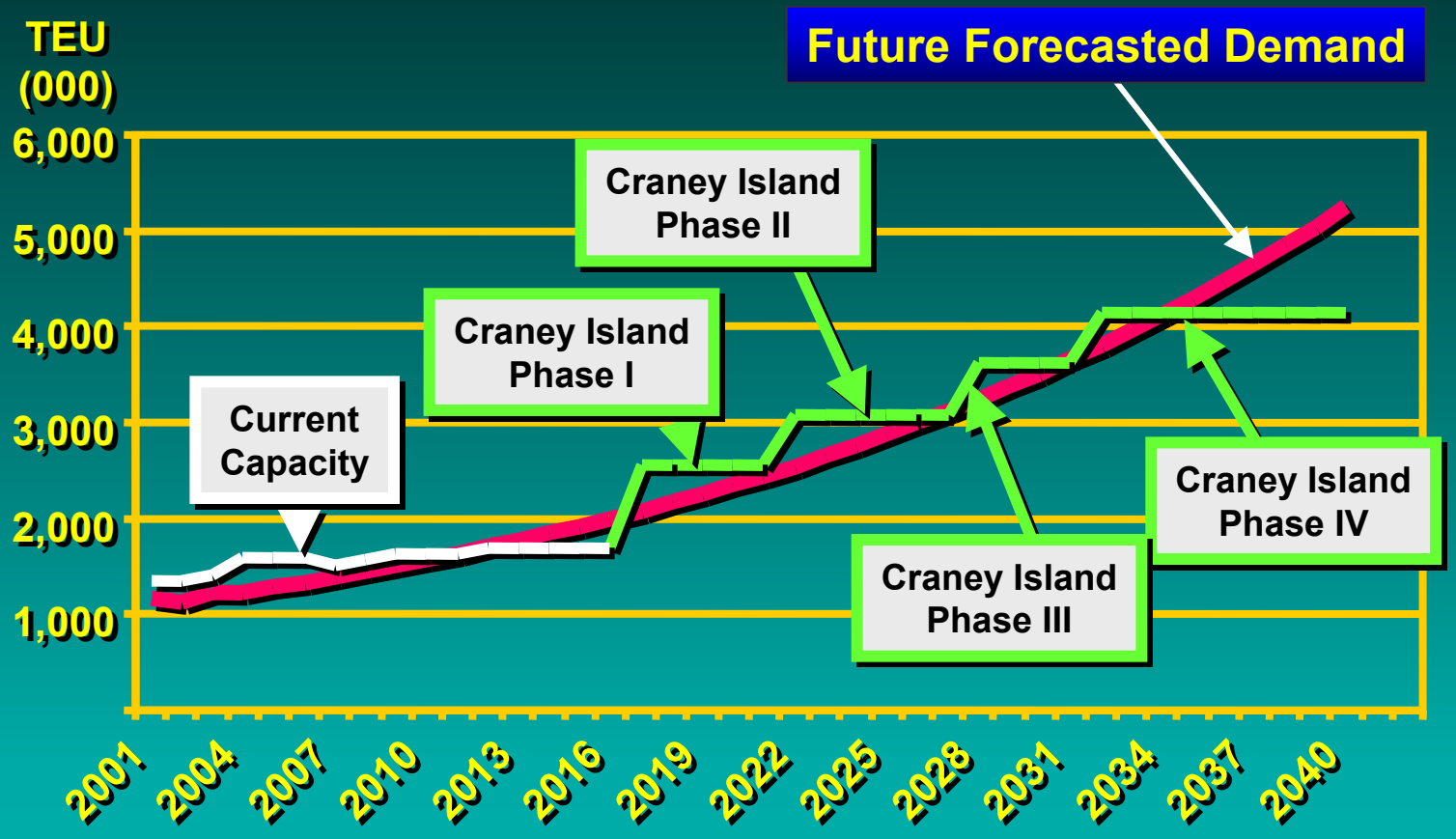
Western Freeway Rail Corridor
- Rail Median Project
- Eliminate 13 At-Grade Crossings

New Terminal Capacity
- Roanoke, VA
- Prichard, WV
- Columbus, OH

TranSystems Corporation

Ports of Virginia Growth

Cargo is Projected to Grow at 4.1% for the Next 20 to 40 Years



53rd Virginia Transportation Conference

US Chamber of Commerce
National Chamber Foundation
Trade & Transportation: A Study of North American Port and Intermodal Systems:
Freight Movement from Virginia Ports

"Electronic copies of this presentation are available upon request"

TranSystems Corporation